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INDUSTRY-GOVERNMENT COOPERATIVE RESEARCH FOR WATER POLLUTION CONTROL

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Ada, Oklahoma

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Abstract: The Federal Government's policy regarding water pollution is presented. The various types of grants and contracts administered by the Federal Water Pollution Control Administration are discussed. Those grant programs which are directly related to industrial waste problems are explained.

A major purpose of the Federal Water Pollution Control Act, as amended, is to enhance the quality and value of our water resources. The Act further states that it is the policy of Congress "...to support and aid technical research relating to the prevention and control of water pollution, and to provide Federal technical services and financial aid to State and interstate agencies and to municipalities in connection with the prevention and control of water pollution." The responsibility for carrying out the provisions of the Federal Water Pollution Control Act rests with the Federal Water Pollution Control Administration, an agency of the U. S. Department of the Interior.

Industry today is a major water polluter. However, I hasten to say that the same can be said of municipalities and agriculture, as well as other segments of our society.

An encouraging sign in recent years is the recognition in most quarters of the seriousness of the water pollution problems facing our Nation and the willingness to do something about these problems.

Most responsible industries now realize that they can no longer claim the right to dump their wastes into the nearest water course without regard for the ultimate effects of those wastes on the environment. These industries have come to recognize that a clean and abundant water supply is essential to their growth and prosperity.

One way industries are demonstrating their concern is by increased expenditures for pollution control facilities. Estimated expenditures by industry, during 1968, for air and water pollution control amounted to $1.56 billion--an increase of 34 percent over the previous year (1). This is encouraging, but indications are that more will have to be done. A report issued in January 1968 by the Federal Water Pollution Control Administration projected the minimum cost requirements to attain water quality standards by the end of 1973 for major water-using industries at between $3 and $5 billion (2).

A three-step policy for water quality has been recommended which seems to have special relevance to industry (3). This three-step policy is as follows:

1. Minimize withdrawals of waters from our water-courses
2. Maximize use of withdrawn water
3. Minimize discharge of polluting effluents back into those waterways

Minimizing withdrawals of water by industry can be accomplished in two ways. First, eliminating all waste of water and, second, improving equipment and processes to reduce water requirements.

The most obvious way to attain maximum use of withdrawn water in industry is through reuse. Many practices have been adopted in various industries to allow the use of the same water in more than one process, thus making maximum use of that water. Management at all levels should continue to look for additional ways to make maximum use of water by reuse practices.

Adequate treatment or on-site disposal of industrial wastes will assure a minimum discharge of pollutants into the Nation's waterways. Industries should not overlook the possibilities of removing potential pollutants which have economic value. Where this is possible, a twofold benefit is realized. First, the benefit of reducing pollution and, second, a monetary return.

It is apparent that if industry is to make significant advancements in any of these three policy objectives, the technology under discussion in this workshop, "Industrial Process Design for Water Pollution Control," will be extremely important.

One of the significant features of the Federal Water Pollution Control Act is its provision for various types of grants and contracts to support research and development relating to the causes, control, and prevention of water pollution. Of most direct interest to industries is a provision in Section 6 authorizing, "...grants to persons for research and demonstration projects for prevention of pollution of waters by industry including, but not limited to, treatment of industrial waste." You will notice that these grants would include projects to prevent pollution, such as by process modification, as well as the treatment of industrial wastes.

Three limitations are placed on these types of grants:

1. No grant shall be made in excess of $1,000,000.

2. No grant shall be made for more than 70 percent of the cost of the project.

3. No grant shall be made for any project unless the Secretary of the Interior determines that the project will serve a useful purpose in the development or demonstration of a new or improved method of treating industrial wastes or otherwise preventing pollution of waters by industry, and the method developed or demonstrated must have industry-wide application.

This type of grant is of most interest to industry, and is intended to be a cooperative effort between industry and government. Other grant programs administered by the Federal Water

Pollution Control Administration, for which industries are not eligible, also have benefits for industry. Other types of research and demonstration grants deal with such subjects as identification of pollutants, fate and persistence of pollution, effects of pollutants on water use, treatment processes, and ultimate disposal of pollutants. The results from these grants will very often be of immediate use to industry.

Another type of grant which benefits industry is for the purpose of demonstrating new or improved methods of joint treatment systems for municipal and industrial wastes. These grants are made only to States, municipalities, or intermunicipal or interstate agencies.

Grants for the construction of municipal sewage treatment facilities also benefit industry indirectly, since many industries discharge their wastes to municipal systems.

In addition to the various grants programs, the Federal Water Pollution Control Administration awards research contracts for specific work relating to water pollution control. Many results of this research are also of benefit to industry.

It should be apparent that the Federal Government is interested in working cooperatively with industry to find solutions to water pollution problems originating with industry. This cooperation is best demonstrated in areas of research and development which are the basis for technological advances that can provide answers to the serious questions arising from the current water pollution crisis.

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